

Motor Vehicles, Model Year 1994

By Ralph W. Morris

IN MODEL year 1994, motor vehicle sales, employment, and production increased for the third consecutive year, and inventories remained lean.¹ The improvement in sales was more than accounted for by sales of domestic cars and domestic trucks (table 1).

Sales of new motor vehicles in the United States increased 9.1 percent in model year 1994 to 15.2 million units, the highest level since 1989; sales had increased 8.1 percent in 1993 and 0.9 per-

cent in 1992. Sales of trucks jumped 13.6 percent in 1994; sales of transplant trucks and domestic-nameplate trucks increased sharply, but sales of imported trucks decreased.² Sales of cars increased 6.3 percent; sales of transplant cars and domestic-nameplate cars increased, but sales of imported cars decreased. Combined sales of domestic cars and domestic light trucks reached a record level.

The increase in vehicle sales in 1994 led motor vehicle manufacturers to increase production, which was reflected in sizable increases in

1. This article uses data on unit sales, inventories, and production mainly from the *Ward's Automotive Reports* and the American Automobile Manufacturers Association, Inc. and data on prices mainly from the Automobile Invoice Service and the Bureau of Labor Statistics, U.S. Department of Labor. These data underlie the estimates of auto and truck output in the national income and product accounts.

For this article, the model year is defined as beginning on October 1 and ending on the following September 30. Thus, model year 1994 covers the fourth calendar quarter of 1993 and the first, second, and third calendar quarters of 1994.

2. Sales of domestic cars and trucks consist of sales of vehicles manufactured in North America and sold in the United States. Domestic-nameplate vehicles are those manufactured in North America at factories owned by U.S. companies. Transplant vehicles are those manufactured in North America at foreign-owned factories, which are known as transplants. Imported cars and trucks are those manufactured outside North America and sold in the United States.

Table 1.—Selected Motor Vehicle Indicators

	Model year ¹						Seasonally adjusted annual rates				
	1989	1990	1991	1992	1993	1994	1993		1994		
							III	IV	I	II	III
	Thousands of units										
New motor vehicle sales	15,394	14,169	12,756	12,868	13,913	15,179	14,023	14,891	15,808	15,129	15,030
New-car sales	10,328	9,436	8,589	8,334	8,606	9,150	8,652	8,967	9,446	9,154	9,093
Domestic	7,387	6,790	6,276	6,195	6,595	7,173	6,682	7,077	7,443	7,160	7,086
U.S. nameplates	6,642	5,758	5,137	5,048	5,533	5,790	.....	.....	.....	.....	.....
Transplants	745	1,032	1,140	1,146	1,062	1,383	.....	.....	.....	.....	.....
Import	2,941	2,645	2,313	2,140	2,011	1,977	1,970	1,890	2,003	1,994	2,007
New-truck sales	5,066	4,733	4,167	4,533	5,307	6,029	5,371	5,924	6,362	5,975	5,937
Domestic	4,723	4,428	3,914	4,273	4,987	5,654	5,038	5,557	5,999	5,591	5,548
U.S. nameplates	4,205	3,996	3,582	4,026	4,789	5,499	4,854	5,426	5,859	5,434	5,361
Transplants .....	.....	.....	11	77	135	334	435	.....	.....	.....	.....
Import	518	432	333	247	199	155	184	131	140	157	186
Other	343	306	253	261	320	375	334	368	363	384	389
Domestic-car production	7,129	6,231	5,454	5,643	5,827	6,539	5,365	6,365	6,990	6,403	6,467
Domestic-car inventories ² .....	.....	.....	.....	.....	.....	.....	1,359	1,382	1,390	1,394	1,390
Domestic-car inventory-sales ratio ³ .....	.....	.....	.....	.....	.....	.....	2.44	2.34	2.24	2.34	2.35
	Dollars										
Average expenditure per new car ⁴	15,078	15,926	16,650	17,825	18,585	19,467	18,828	19,036	19,112	19,660	20,061
Domestic	14,738	15,470	16,215	17,152	17,519	18,204	17,615	17,779	17,775	18,396	18,864
Import	15,963	17,116	17,830	19,792	22,093	24,078	22,940	23,742	24,081	24,200	24,288

1. A model year begins on October 1 and ends on September 30. Thus, it covers the fourth quarter of one calendar year and the first three quarters of the next calendar year. Model year 1994, for example, encompasses the fourth quarter of 1993 and the first, second, and third quarters of 1994.

2. End of quarter, not at annual rate.

3. Ratio of end-of-quarter inventories to average monthly sales for the quarter.

4. BEA estimate based on the manufacturer's suggested retail price (adjusted for options, discounts or premiums, and sales taxes) for each model, weighted by each model's share of sales; not at annual rates.

Source: American Automobile Manufacturers Association and Ward's Automotive Reports; data are seasonally adjusted by BEA.

employment, in average weekly hours, and in capacity utilization. Employment in the motor vehicle industry increased 5.0 percent to 868,000 in model year 1994 after increasing 2.0 percent in 1993. The average weekly hours of production workers increased 1.9 hours, to 45.8 hours, and the capacity utilization rate jumped 9.7 percentage points to 85.7 percent.

Motor vehicle sales have behaved atypically during the current business recovery. Typically, sales increase sharply during the first 2 years of a recovery and then slow down. In the current recovery, relatively modest increases during the first 2 years of the recovery were followed by a stronger increase during the third year (chart 1).

Factors affecting 1994 sales.—The increase in vehicle sales in 1994 partly reflected three interrelated general economic factors that are usually associated with increases in expenditures for durable goods: Constant-dollar disposable personal income increased 2.5 percent, the unemployment rate decreased for the second consecutive year, and the Index of Consumer Sentiment (prepared

by the University of Michigan's Survey Research Center) increased to its highest level in 5 years.

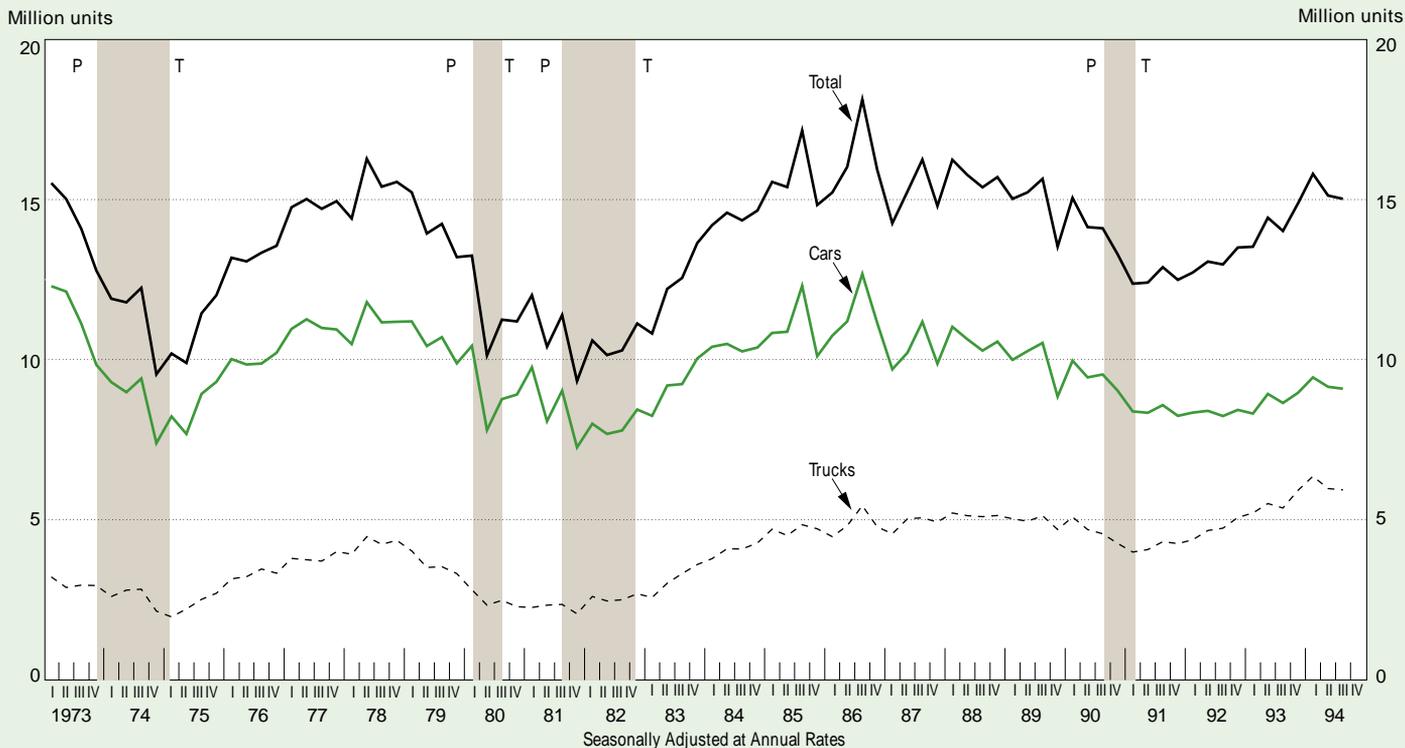
In addition, vehicle sales may have been bolstered by several factors that are specific to the motor vehicle market: Finance terms on new-car loans, sales-incentive programs for consumers, and leasing arrangements.

Finance terms on new-car loans remained favorable. First, interest rates were relatively low: For loans made by commercial banks, rates averaged 8 percent in 1994 after averaging 8½ percent in 1993; for loans made by auto finance companies, rates averaged 9½ percent in 1994, the same as in 1993 (chart 2). Second, downpayments were smaller: For loans made by auto finance companies, the ratio of the average value of loans to value of cars purchased rose to 92 percent in 1994 from 90 percent in 1993.

Manufacturers offered sales-incentive programs to consumers throughout model year 1994. These programs included rebates, below-market financing, and discount packages on options on selected models.

CHART 1

New Motor Vehicle Sales



Note.—Peak (P) indicates the end of business cycle expansion and the beginning of recession (shaded area) and trough (T) indicates the end of business cycle recession and the beginning of expansion. Business cycle peaks and troughs designated by the National Bureau of Economic Research, Inc. Data: American Automobile Manufacturers Association, Inc. and Ward's Automotive Reports, seasonally adjusted by BEA.

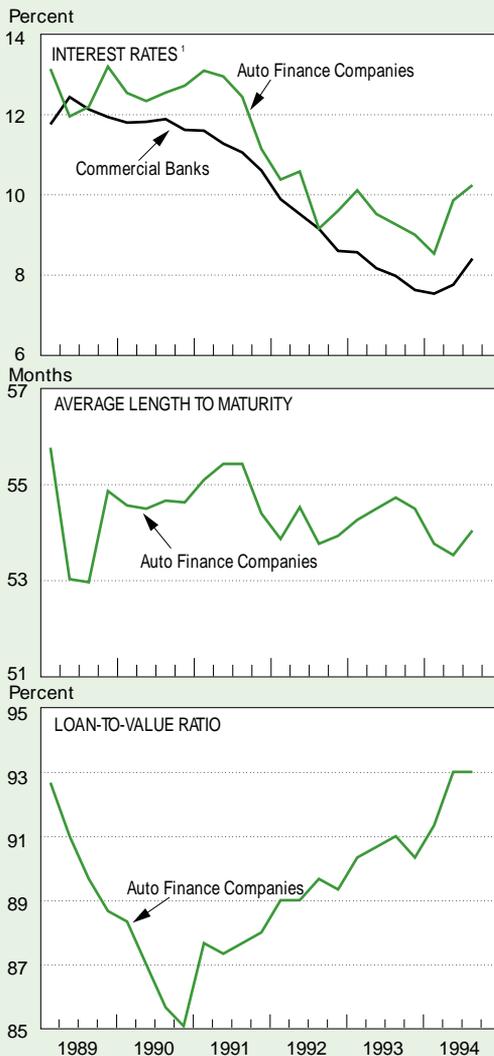
Manufacturers continued to shift marketing strategies toward leasing new vehicles to consumers. These programs promote the features of leasing arrangements that are attractive to consumers: Leasing terms can be designed to hold down monthly payments (making new vehicles available to consumers who either cannot afford or are not willing to make higher monthly payments); alternatively, leasing terms can be designed to require a lower initial cash outlay from consumers than would be required to purchase the vehicle. About one-fourth of new cars and light trucks operated by consumers were leased in

1994, compared with about one-tenth in 1986, the year before leasing began to increase sharply.³

New-car prices increased moderately again in 1994. The consumer price index (CPI) for new cars increased 3.3 percent after increasing 2.4 percent. The average expenditure per new car increased 4.7 percent to \$19,467 after increasing 4.3 percent.⁴ A factor that increased the average expenditure in 1994, as it has in each year since 1989, was an increase in sales of models with additional features, such as driver-side and front-passenger-side airbags, antilock brakes, and power windows. The cost of car operation increased 3.4 percent in 1994 after decreasing 1.5 percent in 1993.⁵ The increase reflected higher gasoline prices and higher insurance premiums.

CHART 2

Finance Terms on 48-Month New Car Installment Loans



1. Most common interest rates (annual percentage rate) at reporting institutions. Data: Federal Reserve Board.

U.S. Department of Commerce, Bureau of Economic Analysis

New Cars

Sales of new cars increased 6.3 percent to 9.2 million units in 1994 after increasing 3.3 percent in 1993; the 1993 increase had followed 6 years of decline. The 1994 increase was more than accounted for by domestic-car sales, as sales of both transplant and domestic-nameplate cars increased.

Sales of domestic cars increased 8.8 percent to 7.2 million units in 1994 after increasing 6.5 percent in 1993. The increases may have partly reflected new-model introductions in recent years and continued improvements in quality. In addition, the increases may have reflected increased sales to businesses who lease to consumers. Sales

3. Information on leasing was provided by CNW Marketing Research.

4. BEA derives the average expenditure per new car by weighting each model's suggested retail price (adjusted for options, discounts or premiums, and sales taxes) by its share of sales. Movements in the average expenditure differ from movements in the new-car component of the CPI primarily because the CPI, unlike the average expenditure, is adjusted to remove the influence of quality change on prices and because the average expenditure, unlike the CPI (which is a fixed-weighted price index), reflects changes in the mix of models and options sold and includes cars sold to businesses and governments.

5. Data on cost of car operation are from an American Automobile Association study that is based on detailed information provided by Runzheimer International. The study covers car owners who were not involved in any accidents.

Data Availability

BEA prepares seasonally adjusted estimates of auto and truck unit sales, auto unit production and inventory change, and average expenditure per car. These estimates are available on printouts and diskettes by subscription. For order information, write to the National Income and Wealth Division (BE-54), Bureau of Economic Analysis, Washington, DC 20230, or call (202) 606-9700.

of transplant cars jumped 30.2 percent after falling 7.3 percent. Sales of domestic-nameplate cars increased 4.6 percent after increasing 9.6 percent.

Sales of imported cars decreased 1.7 percent to 2.0 million units in 1994, the lowest level since 1978. Sales of imported cars have decreased substantially since 1988. The decreases in import sales largely reflect shifts in production by foreign manufacturers from overseas plants to U.S. transplants; most of the models manufactured at transplants were previously manufactured overseas and then imported. In addition, the decrease may also have reflected the weakening of the U.S. dollar against the Japanese yen, which led to larger price increases for Japanese cars than for domestic cars.

The market share (the percent of total new-car sales) of transplant cars jumped to 15.1 per-

cent in 1994 from 12.3 percent in 1993 (chart 3). The market share of domestic-nameplate cars decreased to 63.3 percent from 64.3 percent. The market share of imported cars decreased to 21.6 percent in 1994 from 23.4 percent in 1993; their share had peaked at 30.5 percent in 1987.

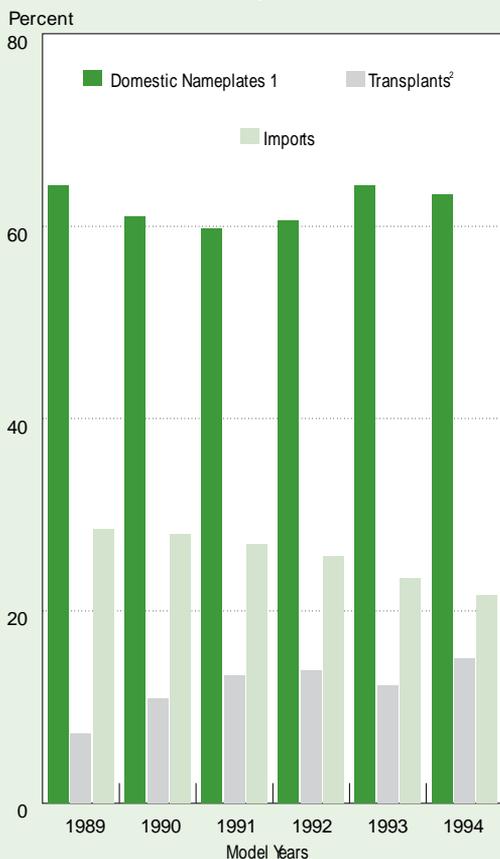
Sales of all size classes of cars increased in 1994; the market shares of large and luxury cars increased, while market shares of small and middle-sized cars decreased. Sales of large cars increased to 1.0 million, and their market share increased to 11.6 percent from 10.7 percent (chart 4). Sales of luxury cars increased to 1.2 million, and their market share edged up to 13.1 percent from 13.0 percent. Sales of small cars increased to 2.9 million, and their market share decreased to 31.6 percent from 32.3 percent. Sales of middle-sized cars increased to 3.9 million, and their market share decreased to 43.6 percent from 44.0 percent.

Domestic-car production increased 12.2 percent to 6.5 million units in 1994—the highest level in 5 years—from 5.8 million in 1993. Domestic-car inventories were at 1.4 million at the end of 1994, about the same as at the end of 1993. The inventory-sales ratio was 2.4—the traditional industry target—at the end of both years.

By quarter, car sales increased in the fourth quarter of 1993 and jumped in the first quarter of 1994; sales decreased in the second and third quarters (chart 5).

CHART 3

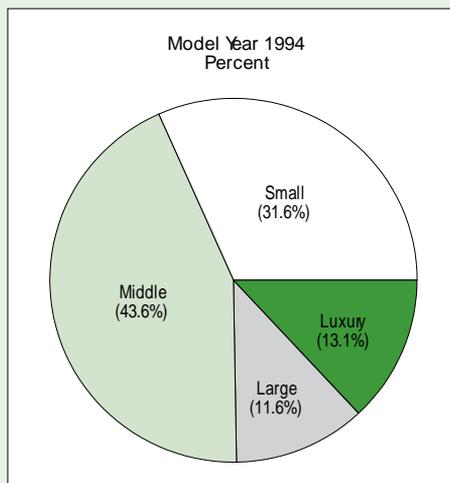
Share of New Cars by Source



1. Domestic nameplates are cars manufactured in North America at factories owned by domestic companies.
 2. Transplants are cars manufactured in North America at factories owned by foreign companies.
 Data: Motor Vehicle Manufacturers Association of the United States, Inc. and Ward's Automotive Reports, seasonally adjusted by B.E.A.

CHART 4

Share of New Car Sales by Size Class



Note—Based on data for October 1, 1993 through September 30, 1994.
 Data: Ward's Automotive Reports

New Trucks

Sales of new trucks increased 13.6 percent to a record 6.0 million units in 1994 after increasing 17.1 percent in 1993. The 1994 increase was mainly accounted for by a jump in the sales of light domestic trucks; sales of "other" trucks also increased, but sales of light imported trucks fell sharply.⁶ The share of total new motor vehicle sales accounted for by trucks increased to a record 39.7 percent in 1994 from 38.1 percent in 1993.

Sales of light trucks (domestic and imported) increased 13.4 percent to 5.7 million in 1994 after increasing 16.7 percent in 1993 and 9.2 percent in 1992. Light-truck sales in 1994 were affected by the same general factors (growth in disposable personal income, declining unemployment, and increasing consumer confidence) and by some of the factors specific to the motor vehicle industry (favorable finance terms, sales-incentive programs, and leasing arrangements) that strengthened car sales.

6. Light trucks are those with a gross vehicle weight of up to 10,000 pounds; these trucks include light conventional pickups, compact pickups, sport-utility vehicles, and passenger vans. "Other" trucks are those with a gross vehicle weight of over 10,000 pounds; these trucks range from medium-duty general delivery trucks to heavy-duty diesel tractor-trailers.

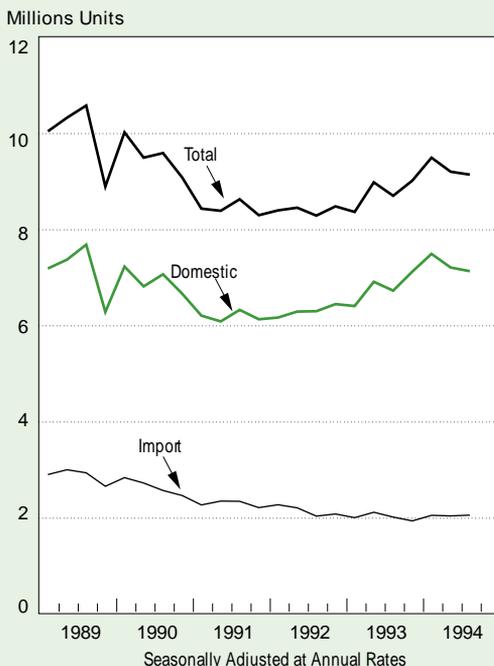
In addition, the increase in light-truck sales continues a 13-year trend in which truck purchases have been substituting for car purchases. The trend is strongest for families purchasing second and third vehicles; these families often prefer the recreation and utility features, such as increased passenger and load-carrying capacity, that light trucks offer. Moreover, trucks are increasingly purchased as primary vehicles because the newly designed truck models have blurred the distinction between trucks and cars in terms of function and comfort.

Sales of light domestic trucks increased 14.8 percent in 1994 after increasing 19.0 percent in 1993 and 12.4 percent in 1992. The strength in sales of these trucks in recent years may have reflected new-model introductions and continued improvements in quality. Sales of domestic-nameplate trucks increased 13.7 percent in 1994 to 5.1 million; their market share of total light-truck sales increased to 89.6 percent. Sales of transplant trucks increased 30.2 percent to 0.4 million; their market share increased to 7.7 percent.

Sales of light imported trucks fell 22.1 percent to 0.2 million after falling 19.4 percent

CHART 5

Retail Sales of New Cars

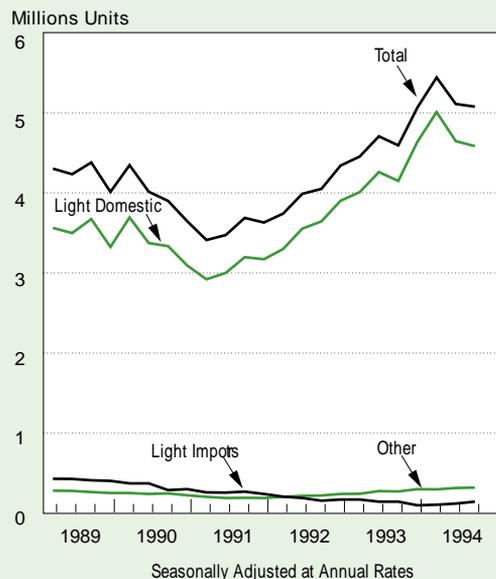


Data: American Automobile Manufacturers Association, Inc. and Ward's Automotive Reports, seasonally adjusted by BEA.

U.S. Department of Commerce, Bureau of Economic Analysis

CHART 6

Retail Sales of New Trucks



Note—Retail sales of domestic trucks are classified by gross vehicle weight as light (up to 10,000 pounds) and "other" (over 10,000 pounds). Imported trucks include imports by U.S. manufacturers.
Data: American Automobile Manufacturers Association, Inc. and Ward's Automotive Reports, seasonally adjusted by BEA.

U.S. Department of Commerce, Bureau of Economic Analysis

in 1993 and 25.9 percent in 1992; import sales have decreased each year since 1988. These decreases, like those of imported-car sales, partly reflected a shift in production from overseas plants to transplants. The imported-truck share of light-truck sales decreased to 2.7 percent in 1994.

Sales of “other” trucks increased 17.2 percent to 0.4 million. Nearly all of these trucks are purchased by businesses.

By quarter, truck sales increased sharply in the fourth quarter of 1993 and the first quarter of 1994; sales decreased in the second and third quarters ([chart 6](#)). 